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**Strong Wills, Weak Locks: Consumer Expectations and the
DMCA Anticircumvention Regime**

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STRONG WILLS, WEAK LOCKS: CONSUMER EXPECTATIONS AND THE DMCA ANTICIRCUMVENTION REGIME

Krzysztof Bebenek[†]

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I. INTRODUCTION

Why do people sometimes choose to infringe copyrights? Why do they sometimes choose not to? This Note suggests they do so because they want to. That answer may sound flippant, but note the twist: it says nothing about

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law or technology. The anticircumvention regime of the Digital Millennium Copyright Act (“DMCA”),¹ which operates in the background of our everyday interactions with the technologies used to distribute copyrighted works, relies on a combination of digital rights management (“DRM”) systems that restrict certain interactions and capabilities, and legal rules that impose liability for defeating these protections.² This regime is complex and, according to many commentators, overly burdensome, riding roughshod over traditional copyright law’s careful balancing of rights between authors and the general public.³ Such criticisms are apt, but I add to them another: because the DMCA’s anticircumvention regime relies on a combination of complex law and porous technology that fails to reflect consumer expectations, there is good reason to believe that it is also fairly ineffectual.

Rather than actively complying with the DMCA’s abstruse provisions or passively accepting the narrow range of interactions that DRM technologies typically allow, many copyright consumers seem to have a different lodestar—their own beliefs and intuitions about the kinds of interactions with copyrighted works that are desirable, appropriate, or natural. Following these intuitions, users do with works as they see fit. They may copy for personal use, to remix and criticize, to share with others, or to avoid paying a price. Should a DRM barrier stand in their way, they may very well circumvent it or they may not, but neither law nor technology seems to bear heavily on the choice. I do not offer this as a reductionist account of consumer behavior. I do suggest, though, that such intuitions or norms may play a greater role than many suspect in governing copyright consumers’ behavior; that they may undermine the efficacy of both legal and technological restraints; and that market participants and lawmakers alike would do well to take them seriously.

The argument proceeds in three Parts. Part II surveys the DMCA regime under § 1201 and then offers a sketch of consumer norms as an alternative paradigm. Part III suggests why such norms may be the primary regulators governing the use (and abuse) of copyrighted works. It draws on both theoretical intuitions and insights from the Copyright Office triennial rulemaking on DMCA exemptions. Part IV explores two key implications of

1. Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1998) (codified as amended in scattered sections of 17 U.S.C.).

2. *See infra* Section II.A.

3. *See generally* LAWRENCE LESSIG, CODE VERSION 2.0, at 180–90 (2006); Timothy K. Armstrong, *Digital Rights Management and the Process of Fair Use*, 20 HARV. J.L. & TECH. 49, 67–68 (2006); Dan L. Burk & Julie E. Cohen, *Fair Use Infrastructure for Rights Management Systems*, 15 HARV. J.L. & TECH. 41, 43–54 (2001).

this view: first, norms force us to rethink our understanding of technology as a tool of governance; second, they hold information that may be vital to improving our copyright policy.

II. WHAT REGULATES?

Perhaps it is foolish to ask what *really* governs people's interactions with copyrighted works and with the technological means used to embed and distribute them. As Cass Sunstein has aptly noted, "what lies behind choices is not a thing but an unruly amalgam of . . . aspirations, tastes, physical states, responses to existing roles and norms, values, judgments, emotions, drives, beliefs, whims."⁴ Still, it is worth asking whether the relevant legal regime in its current form at least plays a significant role in that amalgam—and, if it does not, what takes its place. This Part lays the groundwork: it surveys the anticircumvention provisions of the DMCA, which are intended to govern user behavior, and offers a technology-oriented concept of consumer norms as an alternative candidate.

A. THE DMCA DEFAULT

Section 1201 of the Copyright Act codifies the anticircumvention provisions of the DMCA.⁵ It is a complex statutory scheme but is based on a simple principle: the technological measures that copyright holders use to protect digital embodiments of their works will define the contours of liability.

The statute contemplates two different types of technological protections: access controls and copy controls. Section 1201(a), which governs the circumvention of access controls, defines these protections as technology that, "in the ordinary course of its operation, requires the application of information, or a process or a treatment, with the authority of the copyright owner, to gain access to [a] work."⁶ Section 1201(b), meanwhile, governs circumvention of copy controls. It defines such measures as technology that, "in the ordinary course of its operation, prevents, restricts, or otherwise limits the exercise of a right of a copyright owner under [the Copyright Act]."⁷

4. Cass R. Sunstein, *Social Norms and Social Roles*, 96 COLUM. L. REV. 903, 913 (1996).

5. 17 U.S.C. § 1201 (2006).

6. § 1201(a)(3)(B).

7. § 1201(b)(2)(B).

This distinction is central to the structure of § 1201's prohibitions.⁸ Section 1201(a) provides for two different sources of liability related to the circumvention of access controls. First, it contains a direct prohibition, stating simply that “[n]o person shall circumvent” an access control.⁹ Second, it forbids the “manufacture, import, offer to the public, provi[sion], or [other] traffic[king] in any technology, product, service, device, component, or part thereof that . . . is primarily designed or produced for the purpose of circumventing” access controls.¹⁰ Section 1201(b), however, does not contain a direct prohibition on the circumvention of copy controls. Rather, it contains only a provision nearly identical to § 1201(a)'s prohibition on trafficking in circumvention tools or services, but targeted at tools that allow circumvention of copy controls.¹¹ To the extent one can tell apart the two types of technologies that control access and copying,¹² § 1201 privileges access controls by conferring on them a greater degree of protection: the defendant who defeats an access control to facilitate his infringement will face liability for violating both the traditional exclusive rights conferred on authors by § 106 of the Copyright Act¹³ and the prohibition on circumvention of § 1201(a); the defendant who defeats a copy control in order to infringe, however, will be liable only for traditional copyright

8. Though it is a key feature of § 1201, some commentators have noted that the distinction between the two categories is unclear at best, and perhaps meaningless. As Aaron Perzanowski suggests, while “one can at least conceive of a protection measure that prevents copying without limiting access to the underlying copyrighted work, . . . such a measure may be difficult or impossible to engineer.” Aaron K. Perzanowski, *Evolving Standards and the Future of the DMCA Rulemaking*, 10 J. INTERNET L., Apr. 2007, at 1, 12. Courts, too, have been somewhat inconsistent in making this distinction. See, e.g., *Universal City Studios, Inc. v. Corley*, 273 F.3d 429, 435, 438 n.5 (2d Cir. 2001) (affirming the lower court's finding of a violation stemming from trafficking in tools for the circumvention of copy controls in spite of suggesting that the technological measure in question controlled only access); *321 Studios v. Metro Goldwyn Mayer Studios, Inc.*, 307 F. Supp. 2d 1085, 1097 (N.D. Cal. 2004) (dissolving the conceptual difference between access and copy controls by explaining that “the purpose of [an] access control [on a DVD] is to control copying”).

9. § 1201(a)(1)(A).

10. § 1201(a)(2).

11. § 1201(b)(1).

12. For more on the difficulties of making this distinction, see *supra* note 8.

13. See 17 U.S.C. § 106 (defining an author's exclusive rights in a copyrighted work).

infringement.¹⁴ Violations of § 1201 are subject to civil and, potentially, criminal penalties.¹⁵

Section 1201 layers two types of exemptions atop this scheme of liability. First, the statute designates seven specific categories of activity that it exempts from at least some circumvention liability. There are exemptions for uses by nonprofit libraries, archives, and educational institutions; law enforcement uses; reverse engineering; encryption research; the protection of minors; privacy protection; and security testing.¹⁶ Some, like the law enforcement exemption, pertain to all prohibitions on circumvention and trafficking.¹⁷ Others apply only to specific sources of liability: the nonprofit institution exemption, for instance, applies only to individual circumvention of access controls and does not affect liability for violating either of the trafficking prohibitions.¹⁸

Second, the statute grants the Librarian of Congress authority to engage in a triennial rulemaking to determine, upon the recommendation of the Register of Copyrights, whether “users of a copyrighted work are, or are likely to be in the succeeding 3-year period, adversely affected . . . in their ability to make noninfringing uses . . . of a particular class of copyrighted works.”¹⁹ Circumvention related to any class of works that the Librarian identifies will be exempt from liability for a three-year period.²⁰ Crucially, however, the references to adverse effects, as well as any resulting exemption, apply only to the prohibition on direct circumvention of access controls, and not to the prohibitions on trafficking.²¹

The Librarian of Congress has engaged in this rulemaking process four times to date.²² The exemptions resulting from the initial two rounds were,

14. For more on the distinction between the different degrees of protection that § 1201 confers on access and copy controls, see R. Anthony Reese, *Will Merging Access Controls and Rights Controls Undermine the Structure of Anticircumvention Law?*, 18 BERKELEY TECH. L.J. 612, 622–24 (2003).

15. 17 U.S.C. §§ 1203–1204. Civil penalties under § 1203 are available for all violations, while criminal penalties under § 1204 apply only to violations done “willfully and for purposes of commercial advantage or private financial gain.” *Id.* § 1204(a).

16. *Id.* § 1201(d)–(j).

17. § 1201(e).

18. § 1201(d)(1), (d)(4).

19. § 1201(a)(1)(C).

20. § 1201(a)(1)(D).

21. *See* § 1201(a)(1)(A), (B) (providing that “the prohibition in subparagraph (A)” —that is, the prohibition on “circumvent[ion of] a technological measure that effectively controls access to a work protected under this title” —“shall not apply” to works deemed to have an adverse effect on noninfringing uses).

22. James H. Billington, *Statement of the Librarian of Congress Relating to Section 1201 Rulemaking*, U.S. COPYRIGHT OFFICE (July 26, 2010), available at <http://www.copyright.gov/>

by and large, narrow and esoteric.²³ The last two rounds of rulemaking, however, give reason to suspect that the exemption provision might have more teeth.²⁴ In 2006, the Librarian created an exemption allowing film and media studies professors to circumvent access controls on DVDs in order to use clips from protected works in the classroom.²⁵ In 2010, the Librarian broadened that exemption to include use by other kinds of faculty, film and media students, documentary filmmakers, and, perhaps most significantly, the creators of “noncommercial videos.”²⁶ In the same rulemaking, the Librarian also carved out a new exemption allowing smartphone users to circumvent access controls that prevent their devices from running third-party applications unapproved by their service providers, a practice known as “jailbreaking.”²⁷

One concept is conspicuously absent from the scheme of § 1201: on its face, § 1201 does not explicitly condition liability on any predicate finding of copyright infringement.²⁸ This absence has occasioned a fair amount of inconsistency.²⁹ The Federal Circuit, for instance, has gone some way toward reading in an infringement requirement, holding that plaintiffs must show a nexus between circumvention and infringement in order to establish liability.³⁰ Not all courts have adopted this reading, though. Some have held that defenses such as fair use, which if successful refutes a finding of

1201/2010/Librarian-of-Congress-1201-Statement.html (explaining that “[t]his is the fourth time” the Librarian of Congress has made the determination required by § 1201).

23. *See, e.g.*, Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies (*Section 1201 Rulemaking*), 65 Fed. Reg. 64,556, 64,562 (Oct. 27, 2000) (creating exemption for “[l]iterary works, including computer programs and databases, protected by access control mechanisms that fail to permit access because of malfunction, damage or obsolescence”); *Section 1201 Rulemaking*, 68 Fed. Reg. 62,011, 62,013 (Oct. 31, 2003) (creating exemption for “[c]omputer programs protected by dongles that prevent access due to malfunction or damage and which are obsolete”).

24. *See, e.g.*, Perzanowski, *supra* note 8, at 20–25 (cataloguing both the improvements of the 2006 rulemaking over the prior two rounds in its ability to mitigate the adverse effects of § 1201 on noninfringing uses, as well as its continued shortcomings).

25. *Section 1201 Rulemaking*, Final Rule, 71 Fed. Reg. 68,472, 68,480 (Nov. 27, 2006).

26. *Section 1201 Rulemaking*, Final Rule, 75 Fed. Reg. 43,825, 43,839 (July 27, 2010).

27. *Id.*

28. *See* 17 U.S.C. § 1201 (2006) (imposing prohibitions using the blanket expression “no person shall . . .,” and making no explicit mention of a predicate infringement requirement).

29. For a thorough review of judicial approaches to this aspect of § 1201, see Timothy K. Armstrong, *Fair Circumvention*, 74 BROOK. L. REV. 1, 5–27 (2008) (summarizing two divergent strands of statutory construction).

30. *See* Chamberlain Grp. v. Skylink Techs., Inc., 381 F.3d 1178, 1203 (Fed. Cir. 2004) (requiring that circumvention be done “in a manner that . . . infringes or facilitates infringing a right *protected* by the Copyright Act”).

infringement,³¹ do not apply to violations of § 1201.³² Most notably, the Court of Appeals for the Ninth Circuit last year explicitly rejected the Federal Circuit's approach, finding its nexus requirement unpersuasive and "contrary to the plain language of the statute."³³

B. THE NORM-BASED ALTERNATIVE

That is, briefly, the law on circumvention. But perhaps this complex legal regime does not order people's conduct—perhaps their actions owe something to a more vague and gauzy set of strictures. I will refer to this regulator as "norms," though this use of the term is idiosyncratic. By "norms" I mean the set of expectations and intuitions that govern people's relationships with technology. This idea draws on the concept of mental models developed by cognitive scientists and theorists of human-computer interaction.³⁴ The mental models theory holds, broadly, that people create simplified mental "maps" of devices that guide their interactions with these objects.³⁵ It draws, too, on the work of Langdon Winner, who famously suggested that technical artifacts have a political dimension that manages to conceal itself below their humdrum surface.³⁶ Such objects, Winner argued, are almost inevitably "designed and built in such a way that [they] produce[] a set of consequences logically and temporally *prior to any of [their] professed uses.*"³⁷ As a result, "seemingly innocuous design features . . . actually mask social choices of profound significance."³⁸ Winner's contention that this political dimension remains hidden from view assumes that users have strong preconceived notions of what is *ordinary* for a given technology: they expect their CDs, DVDs, iPods, cell phones, and websites to have certain

31. 17 U.S.C. § 107 ("[T]he fair use of a copyrighted work . . . is not an infringement of copyright.").

32. *See, e.g.,* Universal City Studios, Inc. v. Corley, 273 F.3d 429, 443 (2d Cir. 2001) ("[Appellants] contend that subsection 1201(c)(1), which provides that '[n]othing in this section shall affect rights, remedies, limitations or defenses to copyright infringement, including fair use, under this title,' can be read to allow the circumvention of encryption technology protecting copyrighted material when the material will be put to 'fair uses' exempt from copyright liability. We disagree that subsection 1201(c)(1) permits such a reading.").

33. MDY Indus., L.L.C. v. Blizzard Entm't, 629 F.3d 928, 950 (9th Cir. 2010).

34. *See generally* Stephen J. Payne, *Users' Mental Models: The Very Ideas*, in HCI MODELS, THEORIES, AND FRAMEWORKS: TOWARD A MULTIDISCIPLINARY SCIENCE 135, 135–56 (John M. Carroll ed., 2003) (comparing and contrasting various strands of the mental models theory of human-computer interaction).

35. *Id.* at 142.

36. Langdon Winner, *Do Artifacts Have Politics?*, 109 DAEDALUS, no. 1, 1980, at 121.

37. *Id.* at 125.

38. *Id.* at 127.

capabilities and to lack others; if these technologies do not defy expectations, users may overlook their subtle politics.

This is not the classic account of norms. Many writers on the relationship between law and norms conceive of norms as informal obligations followed in the pursuit of interpersonal esteem, or for the avoidance of social sanction.³⁹ Others, focusing more closely on copyright and the problems of peer-to-peer (“P2P”) file sharing, have traced the erosion of the specific norm of compliance with the law.⁴⁰ Technology-based norms are not interpersonal, but they nonetheless share two important features with social norms: first, flowing as they do from expectations and intuitions, they are by nature informal; second, because they pertain to mass-market devices and media formats, they are shared by large groups of people and hence are common enough to govern conduct. Compliance, meanwhile, is a rather reductive framework. While it may be apposite in the P2P context, where the relevant legal rule is a fairly simple prohibition on outright copying,⁴¹ as argued below, it is far less illuminating with respect to a statute like the DMCA, whose complexity calls the very notion of strict compliance into question.

Such technological norms might just as easily go by the name of “consumer expectations” or, when put into practice, “consumer behavior.” I use all of these terms interchangeably. I use the term “norms,” though, because I believe both my use of that term and its more traditional usage have a common root in the concept of social meaning. Social meaning refers to the expressive content of everyday behaviors, which is derived from the particular role these behaviors play in people’s relations with one another.⁴² Because the vast majority of copyrighted works are expressive, our interactions with such works—be they through authorship, consumption, commentary, remixing, sampling, appropriation, or theft—are surely

39. See, e.g., LESSIG, *supra* note 3, at 120–37; Richard H. McAdams, *The Origin, Development, and Regulation of Norms*, 96 MICH. L. REV. 338 (1997); Sunstein, *supra* note 4, at 914–21.

40. See, e.g., Ben Depoorter & Sven Vanneste, *Norms and Enforcement: The Case Against Copyright Litigation*, 84 OR. L. REV. 1127, 1139–43 (2005); Daniel J. Gervais, *The Price of Social Norms: Towards a Liability Regime for File-Sharing*, 12 J. INTELL. PROP. L. 39, 49–51 (2004).

41. Even in this context, though, more sophisticated models are possible. Lior Strahilevitz, for instance, has merged the interpersonal and compliance frameworks by arguing that norms of cooperation and reciprocity on P2P networks create a kind of “charismatic code” that helps to mask the illegality of file sharing from participants. Lior Jacob Strahilevitz, *Charismatic Code, Social Norms, and the Emergence of Cooperation on the File-Swapping Networks*, 89 VA. L. REV. 505, 547–75 (2003).

42. See Lawrence Lessig, *The Regulation of Social Meaning*, 62 U. CHI. L. REV. 943 (1995); Sunstein, *supra* note 4, at 925–28.

freighted with social meanings: the ways we produce, consume, and otherwise use them are all embedded in particular social contexts and serve specific social purposes. It is therefore no stretch to suggest that this social meaning extends to the rather more mundane and solitary technical work that is instrumental to those interactions. Buying a record, downloading an MP3 file, photocopying artwork from a book, ripping a film from an access-protected DVD—we do these things, generally, not for their own intrinsic value, but to serve some further purpose: as with the choice to follow social norms, here too we have our reasons.

III. THE CASE FOR NORMS

There is cause to believe that today, those reasons might at the very least be as important as the law in governing people's actions. This Part makes the case for viewing circumvention and anticircumvention through the prism of norms on both theoretical and empirical grounds.

A. THEORETICAL ARGUMENTS

1. *The Weakness of Law and Architecture*

Before considering whether the DMCA works, we would do well to ask how it is supposed to work. In a sense, it is a law like many another: it demands compliance and imposes sanctions for refusal. But, it would be rather implausible to claim that ordinary users actually *comply* with the DMCA. That would presuppose knowledge of what is, after all, a very complex statute. A user contemplating circumvention of the Content Scramble System ("CSS") protecting a DVD who wished to make a noninfringing use and comply to the letter with the DMCA would first have to understand the statute's differential treatment of access and copy controls and would have to determine which set of provisions applied to CSS. He would then have to know that the statute makes a further distinction between circumvention on one's own and trafficking in circumvention tools or services. Finally, he would have to be aware of the seven statutory exemptions and the additional exemptions promulgated by rulemaking, and would have to determine whether any applied to his conduct. We may lack the kind of perfect access to the minds of consumers that would allow a definitive rejection of the compliance paradigm. Nonetheless, to argue that ordinary consumers consciously comply with or flout the law when they choose whether or not to circumvent seems intuitively incorrect.

If the statute's complexity renders compliance with the law difficult for the ordinary copyright consumer, it would seem that the technological protections imposed on copyrighted works do the lion's share of the work in

the DMCA regime. But there is also reason to doubt this possibility. Were DRM technology effective on its own at preventing piracy, § 1201's prohibitions would be largely superfluous. In fact, this technology is imperfect and porous. Software is hackable,⁴³ and DRM has proven particularly vulnerable on this front.⁴⁴ Technological protection measures, it seems, protect very little.

But perhaps directly blocking copying and other such interactions is not the only way that DRM operates. Imagine in place of DRM a chain-link fence of average height surrounding a piece of land.⁴⁵ The fence is by no means insurmountable, though to be sure, climbing it takes some amount of effort for the would-be trespasser. Its ultimate significance, though, is symbolic: it serves as a clear marker of the line beyond which the law of trespass takes effect. The modest amount of extra effort required to scale the fence therefore deters not in and of itself, but because it serves as a reminder that the trespasser's act flouts both the will of the property owner and the command of the sovereign. The law communicates, and the fence, along with the kinds of physical interactions it requires, is one of the means by which it communicates.

Arguably, DRM systems function in much the same way as the fence. Few such digital fences are inherently insurmountable. Granted, these measures do increase the cost of the interactions they seek to block. At first, then, the cost of circumvention may be high to most. But to those with the right technological skills, scaling the digital fence is only a matter of time. And it is an axiom of information economics that once someone has made it over, presuming a willingness to share information, others will be able to replicate his results at no additional cost: the marginal cost of producing information is generally near zero.⁴⁶ Ultimately, then, DRM increases the cost

43. James Grimmelmann, *Regulation by Software*, 114 YALE L.J. 1719, 1742–43 (2005) (describing vulnerability to hacking as an inherent feature of software).

44. *Id.* at 1755–57 (cataloguing DRM vulnerabilities and concluding that “[i]t is not clear that any DRM system has withstood a serious attempt to crack it”).

45. The analogy between tangible and intellectual property rights is in many ways imperfect. For this reason, Dan Burk and Julie Cohen reject comparing DRM systems to fences. *See* Burk & Cohen, *supra* note 3, at 52–54. While I largely agree with their arguments, this analogy remains instructive with respect to the ways people experience and interact with these two very different technologies.

46. *See, e.g.*, Kenneth J. Arrow, *Economic Welfare and the Allocation of Resources for Invention*, in *THE RATE AND DIRECTION OF INVENTIVE ACTIVITY: ECONOMIC AND SOCIAL FACTORS* 609, 615 (Nat'l Bureau of Econ. Research ed., 1962) (“In the absence of special legal protection, the owner cannot . . . simply sell information on the open market. Any one purchaser can destroy the monopoly, since he can reproduce the information at little or no cost.”).

of the interactions it proscribes only modestly. In doing so, however, it has the power to put the would-be circumventor on notice—to bring about a moment of contemplation when she might reflect on her actions. Whether she creates a circumvention tool from scratch or merely downloads one, our circumventor is likely to take note that her interaction with the copyrighted work has moved from an easy, unimpeded channel to a more clandestine kind of space. She must, at some level, confront the significance of this fact.

But what significance does this fact hold? For the pirate who seeks to profit by reproducing the work of others on a mass scale, probably very little. But the remixer who wants to repurpose a brief clip from a Hollywood blockbuster may face a more difficult choice. A dogged few may attempt to wade their way to truth though § 1201. Some could assume DRM is there for good reason and dutifully stand down. Others, however, driven by some private sense that they are taking only a short clip, or that the remix is a cultural staple and could not possibly be illegal, or that their conduct harms the copyright holder negligibly, if at all, would likely forge ahead. As Lessig and other commentators have observed, using technological measures to implement legal protections is a way of “privatizing” legal decision-making.⁴⁷ They had in mind the way such technological measures let copyright *owners*, rather than lawmakers, regulate how their works are used.⁴⁸ There is just as much reason to believe, however, that the combination of a highly complicated legal regime with imperfect, porous technology actually puts the key decisions in the hands of the *users* whom it is meant to govern. That result, of course, can hardly be called “governance.”

2. *DRM Versus the Norms of Ownership*

As the discussion above suggests, people tend to have different ideas about the appropriateness of circumvention and of the underlying uses of copyrighted works that circumvention may help further. But DRM does more than just leave consumers to rely on those ideas; it pushes them to confront the question whether or not to circumvent. At the same time, there is reason to believe that it also destabilizes some of the very ideas one might rely on to help arrive at an answer. This is because DRM brings into conflict with one another two strong intuitions about ownership: the notion of property as the owner’s sole dominion and the prohibition on trespass.

47. See, e.g., LESSIG, *supra* note 3, at 179 (“Trusted systems . . . are a privatized alternative to copyright law.”); Daniel Benoliel, *Technological Standards, Inc.: Rethinking Cyberspace Regulatory Epistemology*, 92 CALIF. L. REV. 1069, 1114 (2004) (arguing that through the use of DRM, “decentralized content providers are . . . privatizing [copyright] enforcement authority”).

48. See, e.g., LESSIG, *supra* note 3, at 179.

William Blackstone famously described property as “that sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe.”⁴⁹ At least as far as chattels are concerned, the law does largely give the Blackstonian notion effect. Courts have traditionally been highly skeptical of servitudes or other encumbrances that run with personal property in a way that they have not been with similar restrictions on an owner’s use of land, and contemporary authorities on the subject agree that such restrictions would likely be impossible to impose today.⁵⁰

This general reluctance is heightened all the more in the intellectual property context, where well-established doctrines both stress the separateness of the owner’s intangible entitlement from the physical object that embodies it and limit the entitlement holder’s ability to exert control over the physical object beyond an initial sale. The first sale doctrine in copyright, for instance, allows the owner of a particular copy of a copyrighted work to sell or display that copy,⁵¹ even though such uses are otherwise among the exclusive rights of the copyright holder.⁵² Moreover, the first sale doctrine is not merely a statutory provision but has a far richer and more far-reaching common law pedigree.⁵³ As such, it should be properly understood not as an “idiosyncratic limit on the distribution right,” but as a “principle hold[ing] that a fundamental set of user rights or privileges flows from lawful ownership of a copy of a work.”⁵⁴ Patent law’s exhaustion doctrine embodies a similar principle.⁵⁵

All of this, of course, is law. But it is by and large settled, uniform, and simple law. Unlike the case of the DMCA, here, there is far more reason to believe that we have internalized these principles. In the popular

49. 2 WILLIAM BLACKSTONE, COMMENTARIES ON THE LAWS OF ENGLAND 2 (7th ed. 1775).

50. See Molly Shaffer Van Houweling, *The New Servitudes*, 96 GEO. L.J. 885, 906 (2008) (describing the “origins and development of [a] special hostility to chattel servitudes” and noting “[t]he conventional wisdom, as described by contemporary commentators, . . . that personal property servitudes are seldom enforceable”).

51. See 17 U.S.C. § 109 (2006).

52. See *id.* § 106.

53. Aaron Perzanowski & Jason Schultz, *Digital Exhaustion*, 58 UCLA L. REV. 889, 912–25 (2011).

54. *Id.* at 912.

55. As the Supreme Court recently reaffirmed, under “[t]he longstanding doctrine of patent exhaustion . . . the initial authorized sale of a patented item terminates all patent rights to that item.” *Quanta Computer, Inc. v. LG Elecs., Inc.*, 553 U.S. 617, 625 (2008). Exhaustion is a common law doctrine not codified in the Patent Act. Its roots lie in nineteenth-century cases, many of which involved post-sale restrictions on patented items with an anticompetitive flavor. For a brief history of the doctrine, see *id.* at 625–28.

understanding that derives from this stable and fairly unequivocal set of laws, then, to own an object means to do with it as one pleases. However, DRM has brought this clear principle into tension with another venerable pillar of property law: the prohibition on trespass. This prohibition is not necessarily absolute,⁵⁶ but it is definitive. The Supreme Court has called the right to exclude “one of the most essential sticks in the bundle of rights that are commonly characterized as property.”⁵⁷ Accordingly, this interest enjoys broad protection. Tort law allows a cause of action for trespass both to chattels and on land (and, unusually for tort, requires no showing of harm in the latter case);⁵⁸ furthermore, it favors injunctive relief on a finding of liability.⁵⁹ Criminal law imposes liability for similar conduct.⁶⁰ In short, the law takes special care to protect boundary lines, and, as with the Blackstonian conception, its prohibitions in this sphere are almost universally understood. That trespass, lock picking, and breaking and entering are forbidden is beyond common knowledge—it is second nature.

At first glance these two principles do not seem out of step with each other. The law’s safeguards against trespass seem perfectly aligned with the Blackstonian notion of “sole and despotic dominion.”⁶¹ But DRM upends this balance. It limits the natural functionality of tangible objects that we own,⁶² placing certain capabilities behind digital locks. So the professor who wishes to supplement her lecture with compiled clips of films culled from lawfully purchased DVDs must first defeat the CSS protections disabling copy functionality on each disc. And the iPhone owner who wants to install an application that Apple has deemed inappropriate faces a similar lock. Here, and in many analogous situations, such locks place before the user a

56. EDUARDO MOISÉS PEÑALVER & SONIA K. KATYAL, PROPERTY OUTLAWS: HOW SQUATTERS, PIRATES, AND PROTESTERS IMPROVE THE LAW OF OWNERSHIP 152–56 (2010) (discussing doctrine of necessity as an exception to liability for trespass).

57. *Kaiser Aetna v. United States*, 444 U.S. 164, 176 (1979).

58. *See, e.g.*, RESTATEMENT (SECOND) OF TORTS § 158 (1977) (imposing liability for intentional trespass on land); *id.* § 163 (imposing liability for intentional trespass on land in the absence of any resultant harm); *id.* § 218 (imposing liability for trespass to chattels).

59. *See id.* § 937 cmt. a (explaining that while tort law now deems equitable remedies appropriate in other contexts as well, equity has historically “intervened . . . to protect property interests”).

60. *See, e.g.*, MODEL PENAL CODE §§ 221.1–221.2 (1981) (defining liability for burglary and criminal trespass).

61. *See* BLACKSTONE, *supra* note 49, at 2.

62. To be sure, the question of copy *ownership* becomes complicated when works are distributed directly over digital networks, without a clear tangible embodiment or chattel that one might be said to own in the traditional sense. *See* Brian W. Carver, *Why License Agreements Do Not Control Copy Ownership: First Sales and Essential Copies*, 25 BERKELEY TECH. L.J. 1888 (2010).

dilemma that traditional intuitions about ownership cannot easily resolve. To abandon one's desired uses is to relinquish one's sole dominion over the object in question, while carrying on as planned would require a kind of trespass.

To anyone who has internalized traditional property expectations, neither option can be very satisfying. Writing about the closely related scenario where restrictive terms in shrinkwrap licenses clash with consumers' expectations about ownership, Mark Lemley describes the result as cognitive dissonance.⁶³ If anything, such dissonance is even stronger here. After all, Lemley refers to a conflict between user expectations and legal restrictions, whose force users might never know unless they find themselves hauled into court. Here, however, the restrictions act directly on the user—the conflict is unavoidable, the signals DRM sends decidedly mixed.

One might object to this reasoning. The first sale doctrine notwithstanding, has copyright law itself not always posed sharp limitations on the range of uses to which consumers could put tangible embodiments of works? Might we not expect consumers to have internalized such restrictions? While such limitations do exist, they have historically intersected very little with the kinds of uses that consumers might typically have wanted to make of their copies of copyrighted works. Thus, there is good reason to believe that they have had a limited impact on consumer expectations.

In the analog world, infringement of the sort that would deprive copyright holders of profits had to take place on an industrial scale: it called for printing presses, vinyl presses, mass duplication facilities—in other words, large capital investments.⁶⁴ Copyright law traditionally reflected this notion, treating smaller-scale, private uses with benign neglect, or specifically exempting them from liability.⁶⁵ Julie Cohen has called this schema copyright's public-private distinction. This distinction let consumers read, listen, and watch—and, along the way, develop their expectations—largely outside of copyright law's reach. Coupled with the (silent) limitations of analog consumer technology, it had little scope to upset the belief that their books, records, or cassettes were theirs to do with as they pleased.⁶⁶ Because

63. Mark A. Lemley, *The Law and Economics of Internet Norms*, 73 CHI.-KENT L. REV. 1257, 1274–75 (1998).

64. Jessica Litman, *Real Copyright Reform*, 96 IOWA L. REV. 1, 12 (2010) (“Until recently, mass distribution of copies of works of authorship required large capital investment.”).

65. *See, e.g.*, 17 U.S.C. § 101 (2006) (excluding “a normal circle of family and its social acquaintances” from the definition of “publicly” in order to limit the scope of the public performance and display rights of § 106).

66. Julie E. Cohen, *Comment: Copyright's Public-Private Distinction*, 55 CASE W. RES. L. REV. 963, 964 (2005); *see also* Jessica Litman, *The Exclusive Right To Read*, 13 CARDOZO ARTS

DRM gives copyright owners control over many such private uses, its encroachment on those expectations is far more drastic. Our theoretical intuitions suggest, then, not just that norms are the only potential line of defense in the current DMCA regime, but that they are a rather unstable one at that.

B. CASE STUDY: THE DMCA RULEMAKING

Members of the motion picture, recording, and publishing industries, of related standard-setting bodies, and of other copyright-industry trade groups appear to recognize both the role that norms play in determining consumers' propensity to circumvent and the current instability of those norms. This seems to be an underlying theme, in any case, in these entities' submissions to and testimony in the triennial Copyright Office rulemaking on exemptions to circumvention liability. As might be expected, copyright industry participants in these proceedings often take the position that the Librarian of Congress should grant *no* exemptions to circumvention liability under § 1201(a)(1). Of greater interest is the narrative that emerges as these participants make their case. It is a story with a simple point: granting exemptions will confuse consumers about the legality of circumvention and erode the DMCA's protections; a blanket prohibition is the only appropriate solution.

The claim that granting exemptions will lead to confusion about the appropriateness of circumvention is an oft-repeated refrain. For instance, a representative of the Motion Picture Association of America ("MPAA") argued in a 2006 hearing that "[o]nce you start creating exceptions to the Prohibition Against [Circumvention], . . . [y]ou create confusion."⁶⁷ And in a 2009 comment, the MPAA expressed similar concern about an exemption sowing "widespread confusion as to what circumventions are and are not allowed and whether hacking tools are legitimate."⁶⁸ Likewise, the DVD Copy Control Association ("DVD CCA") has repeatedly argued that "once a

& ENT. L.J. 29, 34 (1994) (explaining that before the age of easy copying, "ordinary consumers could go about their business without ever encountering a copyright problem").

67. Transcript of Testimony at 76, *Section 1201 Rulemaking*, Docket No. RM 2005-11A (U.S. Copyright Office Apr. 3, 2006), available at <http://www.copyright.gov/1201/2006/hearings/transcript-april03.pdf> (testimony of Fritz Attaway, Motion Picture Ass'n of Am.) [hereinafter Attaway Testimony, Apr. 3, 2006].

68. Comments of Motion Picture Ass'n of Am. (MPAA) at 11, *Section 1201 Rulemaking*, Docket No. RM 2008-8 (U.S. Copyright Office Feb. 2, 2009), available at <http://www.copyright.gov/1201/2008/responses/mpaa-46.pdf>.

hacker is given an exemption, even for a limited purpose, it would become impossible to control or predict future hacks.”⁶⁹

Confusion begets erosion, such that any exemption could prove a slippery slope to the end of the DMCA regime, if not the entertainment industry. So, argued the DVD CCA, the supposed impossibility of distinguishing what is and is not lawful means that “even . . . ‘limited exemptions’ will essentially render CSS ineffective as a means of protecting copyrighted content.”⁷⁰ Likewise, Time Warner has argued that “[g]ranting [an exemption] with respect to any particular [DRM] technology would be tantamount to outlawing the use of that technology.”⁷¹ A coalition of major copyright holders and industry members has sounded similar notes.⁷² In 2006, for instance, the coalition warned college professors who sought permission to create digital compilations of film clips from DVDs for classroom use that “the very medium that educators have grown to appreciate and desire to use in their classrooms would be threatened by the recognition of the requested exemption.”⁷³

Instead of confusing exemptions, the copyright industries favor clarity and simplicity. In the words of a software industry representative, exemptions would interfere with the DMCA’s “clear prohibition” on

69. Comments of DVD Copy Control Ass’n, Inc. at 2, *Section 1201 Rulemaking*, Docket No. RM 2002-3 (U.S. Copyright Office Feb. 19, 2003), available at <http://www.copyright.gov/1201/2003/reply/028.pdf>; see also Comments of the DVD Copy Control Ass’n, Inc. at 14, *Section 1201 Rulemaking*, Docket No. RM 2005-11 (U.S. Copyright Office Feb. 2006), available at http://www.copyright.gov/1201/2006/reply/01taylor_DVDCCA.pdf (making a nearly identical argument).

70. Comments of DVD Copy Control Ass’n, *supra* note 69, at 2.

71. Comments of Time Warner, Inc. at 10–11, *Section 1201 Rulemaking*, Docket No. RM 2005-11 (U.S. Copyright Office Feb. 2006), available at http://www.copyright.gov/1201/2006/reply/18aistars_TWI.pdf.

72. This coalition brought together members of major industrial-scale copyright owners and related trade associations in order to represent their joint interests in the rulemaking process. Members included the Association of American Publishers, the Association of American University Presses, the American Society of Media Photographers, the Authors Guild, the Business Software Alliance, the Directors Guild of America, the Entertainment Software Association, the Independent Film & Television Alliance, the Motion Picture Association of America, the National Music Publishers’ Association, the Professional Photographers of America, the Recording Industry Association of America, the Screen Actors Guild, and the Software and Information Industry Association. Joint Reply Comments of Ass’n of Am. Publishers et al. at 1, *Section 1201 Rulemaking*, Docket No. RM 2005-11 (U.S. Copyright Office Feb. 2, 2006), available at http://www.copyright.gov/1201/2006/reply/11metalitz_AAP.pdf.

73. *Id.* at 30.

circumvention.⁷⁴ Similarly, an MPAA representative testified at a 2006 hearing that his organization sought to “maintain the simple proposition that it is illegal to circumvent.”⁷⁵ In 2009, that same representative reiterated his client’s concern about “erosion of the principle that circumventing a technological measure is against the law.”⁷⁶

Most telling, however, is the explanation of *why* such bright-line rules are desirable. As a representative of a copyright industry coalition explained at a 2006 hearing, beyond the legal effect of any proposed exemption, there is also “kind of a meta issue” at play regarding “how [an exemption is] interpreted and how this would be communicated to the public and what message the public would get from it.”⁷⁷ In 2010, this same group made strikingly similar arguments in both its written comments and at hearings.⁷⁸ Extending the scope of an exemption that allowed circumvention of CSS protection on DVDs for classroom use from professors to students, the group argued, would “work at cross purposes” with its members’ “extensive educational campaigns designed to instill a respect for copyright in young people.”⁷⁹ Granting another exemption would interfere with “the average consumer’s recognition that digital locks are not meant to be picked.”⁸⁰ Similarly, in a 2009 hearing, the group’s attorney expressed concern that expanding the circumstances where circumvention is allowed “starts to normalize the behavior.”⁸¹

Two things are salient about such arguments. First and foremost, as industry participants readily admit, the stakes are higher than the possible legal effect of any given exemption because of the way exemptions might shape public perception and behavior. cursory, non-expert coverage of the

74. Transcript of Testimony at 61, *Section 1201 Rulemaking* (U.S. Copyright Office May 2, 2003), available at <http://www.copyright.gov/1201/2003/hearings/transcript-may2.pdf> (testimony of Stevan Mitchell, Interactive Digital Software Ass’n).

75. Attaway Testimony, Apr. 3, 2006, *supra* note 67, at 76.

76. Transcript of Testimony at 317–18, *Section 1201 Rulemaking* (U.S. Copyright Office May 6, 2009), available at <http://www.copyright.gov/1201/hearings/2009/transcripts/1201-5-6-09.txt> (testimony of Fritz Attaway, Motion Picture Ass’n of Am.) [hereinafter Attaway Testimony, May 6, 2009].

77. Transcript of Testimony at 113–14, *Section 1201 Rulemaking*, Docket No. RM 2005-11A (U.S. Copyright Office Mar. 23, 2006), available at <http://www.copyright.gov/1201/2006/hearings/transcript-mar23.pdf> (testimony of Steven Metalitz, Joint Reply Commenters).

78. Joint Reply Comments of Ass’n of Am. Publishers et. al. at 34, *Section 1201 Rulemaking*, Docket No. RM 2008-8 (U.S. Copyright Office Feb. 2, 2009), available at <http://www.copyright.gov/1201/2008/responses/association-american-publishers-47.pdf>.

79. *Id.*

80. *Id.* at 66.

81. Attaway Testimony, May 6, 2009, *supra* note 76, at 302.

resultant regulations,⁸² coupled with the imprimatur of the Copyright Office and the Librarian of Congress,⁸³ hold significant potential to affect public ideas about the legitimacy and desirability of circumvention. Those ideas are well poised to play a significant part in regulating consumer behavior due to the weakness of the other potential regulators.⁸⁴ This explains the copyright holders' efforts to hold the line and oppose any and all exemptions in a blanket fashion.

Second, it is worth noting just what sort of public perception the copyright industries want to maintain. Their representatives' talk of a "clear prohibition"—of principles and bright-line rules against circumvention⁸⁵—stands in stark contrast to the DMCA's actual prohibition on circumvention, which has always been anything but clear or bright. Section 1201 bases the legality of circumvention on the nature of the DRM technology at issue, carves out seven separate exemptions from liability, and authorizes the Librarian of Congress to carve out others.⁸⁶ In short, judging by the stark difference between the perception of the law they wish to create and the law as it actually exists, the copyright industries want the public to believe that the law is more unequivocal and restrictive than it really is. New exemptions, however minimal their scope, would threaten that belief.

One way to view the copyright holders' efforts is as a struggle against what Lessig has called "ambiguation."⁸⁷ The term refers to the phenomenon whereby the polyvalence of a particular act or object comes to undermine the

82. Given the difficulty of explaining a complex regime like the DMCA succinctly, it should not be surprising that much of the coverage of the rulemaking tends to leave out subtle but significant details. For instance, few stories covering the 2010 smartphone "jailbreaking" exemption mention § 1201's important distinction between circumventing on one's own and making use of another's products or services to do so. *See, e.g.*, Jenna Wortham, *In Ruling on iPhones, Apple Loses a Bit of Its Grip*, N.Y. TIMES, Jul. 27, 2010, at B3, available at <http://www.nytimes.com/2010/07/27/technology/27iphone.html>; David Kravets, *U.S. Declares iPhone Jailbreaking Legal, Over Apple's Objections*, WIRED (July 26, 2010), <http://www.wired.com/threatlevel/2010/07/feds-ok-iphone-jailbreaking/>.

83. Industry representatives have repeatedly expressed concerns about the effect of these institutions' blessings on consumer perceptions. *See, e.g.*, Transcript of Testimony at 79–80, *Section 1201 Rulemaking*, Docket No. RM 2005-11A (U.S. Copyright Office Apr. 3, 2006), available at <http://www.copyright.gov/1201/2006/hearings/transcript-april03.pdf> (testimony of Steven Metalitz, Joint Reply Commenters) (expressing concern over "an exemption [being] given the imprimatur of the Copyright Office, the Librarian of Congress, and the law" and "how that would be portrayed to the public"); Joint Reply Comments, *supra* note 78, at 66 ("Granting the proposed exemption could confuse even law abiding consumers by placing the stamp of the Librarian's approval on the 'darknet' marketplace.").

84. *See supra* Section III.A.1.

85. *See supra* notes 74–76 and accompanying text.

86. *See* 17 U.S.C. § 1201 (2006); *see also supra* Section II.A.

87. *See* Lessig, *supra* note 42, at 1010–12.

fixed social meaning it previously held.⁸⁸ Here, the fact that a particular act of circumvention may or may not trench on the legal entitlement of the copyright owner dilutes the strong warning against transgression that these digital barriers were originally meant to send. Although the sources of beliefs about the appropriateness of circumvention are many and varied, the copyright holders may have a point: the lack of congruence between DRM technology, which protects in a blanket way, and the DMCA, which contains exemptions, could contribute to the disorder of those beliefs. This does not mean that eliminating exemptions, as the copyright holders suggest, is the right solution. But by stressing the importance of consumer beliefs, the copyright holders do seem to reach the same conclusion as the theoretical propositions sketched out above: norms play a key role in consumer behavior.

IV. THE IMPLICATIONS

Recognizing the significant role that technological norms play in governing people's interactions with copyrighted works raises two questions with implications that may stretch beyond the context of the DMCA. First, it forces us to revisit the orthodox appraisal of technology as a modality of regulation and ask whether the pessimism that marks this point of view is misplaced. Second, in recognizing the potential power of norms to structure conduct, it is worth considering to what extent the law ought to reflect such popular perceptions.

A. REASSESSING TECHNOLOGY

Commentators like Lessig tend to take a dim view of technology as a tool of regulation.⁸⁹ I do not disagree completely, but the case of DRM forces us to refine some of Lessig's insights. At least with DRM, the problem with regulation by technology seems not to be the fact that it is silent, anonymous, and nearly omnipotent, but rather the contrary: that it is visible and fairly ineffectual.

1. *Technology's Transparency Deficit*

Critics of regulation by technology routinely stress the significant transparency deficit presumably inherent in this approach to governance. As Lessig puts it, regulation by technology "is not seen as regulation" because it creates subtle changes to the field of play itself rather than openly changing

88. *Id.*

89. See LESSIG, *supra* note 3, at 113–14.

the rules of the game; it thus allows the regulator to “hide its agenda.”⁹⁰ Grimmelmann echoes these concerns, arguing that “[i]t may not occur to those regulated by software . . . to conceive of a restrictive design decision as being a decision at all.”⁹¹ Moreover, he continues, in systems governed by software, “it may be nearly impossible to determine who made the relevant regulatory decision”⁹²—a feature that significantly undermines accountability. Lee Tien has argued that the relative obscurity of such regulators allows them slowly and quietly to chip away at and alter existing norms.⁹³ Other commentators have voiced similar concerns.⁹⁴

These observations are apt, but they do not apply uniformly to all attempts at regulation by technology. The case of DRM suggests that the expectations of users can suddenly bring a hitherto invisible technological restriction into full view. Grimmelmann offers the absence of a “record” button from streaming media players as an example of how technology can obscure what are often very conscious regulatory choices.⁹⁵ But many might expect to find such a feature, perhaps because they remember it from VCRs and cassette recorders, or are used to seeing it on cameras or professional digital video equipment. In other words, it is part of their mental model of such technology. These users will immediately notice the absence and perhaps seek out ways to remedy it. What makes a particular restriction visible or invisible thus need not be a function of how a technological system deploys that restriction. Rather, it has at least as much to do with the conceptual categories we bring to the interaction in question. Those who can conceive of a “record” or “copy” button might be wiser to technology’s tricks.

Of course, this is not to deny Tien’s suggestion that over time, the absence of these capabilities from our media technologies will lead to fewer and fewer people conceiving of, let alone desiring, record or copy capability, or any other features that manufacturers have chosen to suppress.⁹⁶ For the moment, however, this seems not to be the case: the prevalence of

90. *Id.* at 135.

91. Grimmelmann, *supra* note 43, at 1737.

92. *Id.*

93. Lee Tien, *Architectural Regulation and the Evolution of Social Norms*, 7 YALE J.L. & TECH. 1, 3–4 (2004).

94. *See, e.g.*, ROGER BROWNSWORD, RIGHTS, REGULATIONS, AND THE TECHNOLOGICAL REVOLUTION 16 (2008) (“On the East Coast, legalism at least lets regulatees know where they stand. By contrast, on the West Coast, those who are controlled stand only where their regulated environment allows them.”).

95. Grimmelmann, *supra* note 43, at 1737.

96. *See* Tien, *supra* note 93, at 12 n.29.

circumvention suggests DRM's restrictions remain visible to many.⁹⁷ We might therefore refine the orthodox view on transparency by specifying that regulation by technology will suffer a transparency deficit only if the technology in question does not defy our expectations. In other words, there is an outer limit to the kinds of restrictions that technology can impose, and this outer limit remains somewhat under our (imperfect, unconscious) control.

2. *Technology's Authority Deficit*

Technology may not always need to operate silently in order to regulate. A keen observer of urban life who was quick to notice that Robert Moses had (allegedly) built highway overpasses in New York City low enough to prevent buses—and their typically poor, African American passengers—from reaching Long Island's beaches would nonetheless be powerless to raise those overpasses and let the buses through.⁹⁸ But where, as in the case of software, the technology in question is highly susceptible to individual hacking and other manipulation, where its restraints, physical or otherwise, can readily be overcome, whatever power to regulate it may have resides entirely in the absence of transparency surrounding the act of regulation. This is because, as a conceptual matter, a technological measure lacks the *authority* to regulate and must therefore rely for its power to do so on the twin ruses of restraint and concealment.⁹⁹

Tellingly, technological regulations appear to lack authority as both the legal positivist and natural law traditions define this concept—an impressive feat given that legal positivists tend to view themselves in opposition to natural law theorists.¹⁰⁰ On the legal positivist account, the law is morally neutral. Thus, as Joseph Raz has argued, its claims to legitimacy derive from the way a putative authority lays down a prescription for conduct. Rather than letting an individual reason about and resolve the matter that it seeks to

97. See, e.g., Eric Pfanner, *File-Sharing Site Violated Copyright, Court Says*, N.Y. TIMES (Apr. 17, 2009), <http://www.nytimes.com/2009/04/18/world/europe/18copy.html> (citing analyst reports that enforcement actions do not suffice to curb the volume of piracy); see also *infra* Section IV.B.1 (describing prevalence of “noncommercial videos” created through circumvention on video-sharing sites like YouTube).

98. See Winner, *supra* note 36, at 123–24 (recounting the story of Moses's low overpasses, and the “master builder's” alleged motivation in building them).

99. See *supra* notes 90–94 and accompanying text.

100. John Finnis, *Natural Law Theories*, in THE STANFORD ENCYCLOPEDIA OF PHILOSOPHY (Edward N. Zalta ed., 2011), <http://plato.stanford.edu/entries/natural-law-theories/> (“Legal theorists who present or understand their theories as ‘positivist,’ or as instances of ‘legal positivism,’ take their theories to be opposed to, or at least clearly distinct from, natural law theory.”).

regulate, the authority, if it is to be viewed as legitimate, must simply furnish its own answer, which must be followed.¹⁰¹ However, the consumer who finds himself thwarted by DRM has no particular reason to accept the answer that DRM offers: the clash between what he has sought to do and what DRM permits practically forces an evaluation of the sought-after interactions on their merits. Applying Raz's model, then, one might say that DRM fails to forestall a moral deliberation and thus fails to govern with any legitimate authority.

Natural law theory, by contrast, makes morality central to law's authority.¹⁰² Working in a modern strand of this tradition, Roger Brownsword draws a distinction between ordinary and "techno" regulation. Regulation by law, he argues, can make use of a "moral pitch," signaling either that "the regulatory position is morally legitimate, or that . . . compliance . . . is morally obligatory."¹⁰³ Regulation by technology, however, does not "engage in any kind of moral discourse with regulatees," nor does it "rely on moral discipline or obedience to authority" because such regulation "by-passes practical reason altogether."¹⁰⁴ To be sure, Brownsword is skeptical about how much resistance circumvention and similar hacks might allow, and he warns that relying on such means to counter the creep of techno-regulation would be complacent.¹⁰⁵ Nonetheless, it is noteworthy that Brownsword locates the power of such regulation entirely in its ability to restrain, physically or technologically.¹⁰⁶

To Brownsword, then, DRM lacks authority because it fails to make a moral appeal. On the legal positivist view, DRM lacks authority because it fails to lay down a rule of conduct. Ultimately, both points of view suggest that DRM lacks authority because it fails to *engage* users in any meaningful way.

101. See JOSEPH RAZ, *THE MORALITY OF FREEDOM* 53 (1986) ("[T]he normal way to establish that a person has authority over another person involves showing that the alleged subject is likely better to comply with reasons which apply to him . . . if he accepts the directives of the alleged authority as authoritatively binding and tries to follow them, rather than by trying to follow the reasons which apply to him directly."). For an application of Raz's argument to the authoritativeness of law, see JEREMY WALDRON, *LAW AND DISAGREEMENT* 95–96 (1999).

102. See, e.g., DERYCK BEYLEVELD & ROGER BROWNSWORD, *LAW AS A MORAL JUDGMENT* 176 (1986) (explaining that "a law' [is] a Legally valid rule . . . if, and only if, it is not immoral to posit the rule for attempted enforcement," meaning that "no wrong is done by positing the rule for attempted enforcement").

103. BROWNSWORD, *supra* note 94, at 243–44.

104. *Id.* at 246–47.

105. See *id.* at 247.

106. *Id.*

3. *A Market Solution*

To summarize, technology appears to fail as a regulator in the copyright sphere both because the sought-after regulations are too out of step with what consumers expect of copyright technologies, and because the technology itself holds limited power to shape those expectations. If copyright holders' paramount goal is to decrease instances of circumvention, one way of doing so might be by catering more closely to consumer expectations. Removing digital locks from at least the benign capabilities consumers desire would decrease the need for circumvention, and could help to shore up a non-circumvention norm. Such a response seems eminently possible, but thus far, there has been little movement on this front.

As some commentators have shown, DRM need not be an all-or-nothing proposition.¹⁰⁷ Existing technology would allow copyright holders to define permissions in a far more subtle and responsive way. Granted, this sort of tailoring would approach the kind of balance that traditional copyright law creates between owners and the public only imperfectly. After all, as Lessig stresses, copyright operates largely through complex standards.¹⁰⁸ The fair use inquiry involves a careful balancing of four statutory factors.¹⁰⁹ Evaluating infringement of the reproduction right likewise can involve the ambiguous standard of substantial similarity.¹¹⁰ Technology, which lacks the capacity for discretion and thus cannot transform even a highly complex bundle of rules into a standard,¹¹¹ cannot hope to reproduce this system. Nonetheless, by allowing more of the kinds of capabilities users expect to find, even if not *all* such capabilities, this approach would bring DRM closer into line with consumer expectations.

Such a strategy might see producers differentiate their products by the level of technological protection imposed on them. Indeed, some market participants have taken this approach, particularly in the online music space.

107. See Stefan Bechtold, *The Present and Future of Digital Rights Management—Musings on Emerging Legal Problems*, in DIGITAL RIGHTS MANAGEMENT: TECHNOLOGICAL, ECONOMIC, LEGAL AND POLITICAL ASPECTS 597 (Eberhard Becker et al. eds., 2003); Armstrong, *supra* note 3, at 99–108.

108. LESSIG, *supra* note 3, at 187 (“Fair use inherently requires a judgment about purpose, or intent. That judgment is beyond the ken of even the best computers.”).

109. See 17 U.S.C. § 107 (2006). *But see* Pamela Samuelson, *Unbundling Fair Uses*, 77 FORDHAM L. REV. 2537, 2541 (2009) (arguing that “fair use law is both more coherent and more predictable than many commentators have perceived once one recognizes that fair use cases tend to fall into common patterns, or . . . policy-relevant clusters”).

110. See 3 WILLIAM F. PATRY, PATRY ON COPYRIGHT § 9:64 (2011) (“As a result of the necessary vagueness of the substantiality inquiry, no a priori line can be fixed to determine when appropriation is substantial.”).

111. See Grimmelmann, *supra* note 43, at 1732–34.

Most notably, in 2007, Apple announced that its iTunes store would begin to sell music without any DRM.¹¹² Major publishers of audio books, including Random House, Penguin Group, and Simon & Schuster, followed suit a year later.¹¹³ And in response to the 2006 classroom movie-clip DMCA exemption for faculty members, the motion picture industry claims to have begun work on a web-based content delivery system that would allow educators to download materials for classroom use, making circumvention unnecessary.¹¹⁴ Many other sectors, however, have not followed suit. For the majority of video consumers, the blanket restriction on copying imposed by CSS, for instance, remains the standard for protecting content on DVDs.

Of course, there are good public policy reasons to oppose such an approach: charging consumers more for a DVD that would allow them to copy small clips of material, for instance, could be a step on the way to so-called “fared use”—a system that would allow copyright holders to profit from uses that lie beyond the scope of their exclusive rights.¹¹⁵ Nonetheless, it is noteworthy that so few copyright holders have opted for this path. After all, if one’s goal is to prevent consumers from circumventing, one way to do so might be to sell them products that let them do what they would like without having to circumvent.

That this has not happened might stem from an unusual kind of market failure: a refusal to respond to market signals out of fear or distrust. Because few have risen to answer these fairly ordinary market incentives, a new kind of motivator seems to have sprung up on the other end. The roadblocks that DRM poses may prompt the technologically inclined to develop circumvention tools. Perhaps this kind of response is to be expected when law diverges too far from norms.¹¹⁶ Perhaps it is to be expected all the more when regulatory *technology* diverges too far from norms, as the remedy then

112. *Apple Unveils Higher Quality DRM-Free Music on the iTunes Store*, APPLE.COM (Apr. 2, 2007), <http://www.apple.com/pr/library/2007/04/02itunes.html>.

113. Brad Stone, *Publishers Phase Out Piracy Protection on Audio Books*, N.Y. TIMES (Mar. 3, 2008), <http://www.nytimes.com/2008/03/03/business/media/03audiobook.html>.

114. Comments of MPAA, *supra* note 68, at 10.

115. See generally Tom W. Bell, *Fair Use vs. Fared Use: The Impact of Automated Rights Management on Copyright's Fair Use Doctrine*, 76 N.C. L. REV. 557 (1998) (arguing that the scope of users’ ability to make fair uses shrinks as DRM allows copyright owners to collect licensing fees for a growing number of uses). Bell views the shift to fared use as a development to be encouraged. *Id.* at 579–600. While the specific merits and shortcomings of such a shift are beyond the scope of this Note, one must at the very least acknowledge that the move toward fared use would radically alter the division of rights between users and copyright owners under the current Copyright Act.

116. See Gervais, *supra* note 40, at 50–53 (describing the response of technologists to social norms surrounding file sharing by developing new P2P platforms).

becomes a problem of pure engineering. On this view, circumvention is the cost of ignoring one's customers.

B. GIVING NORMS THEIR DUE

1. *The Register's Nod to Norms*

Market participants are not the only ones who would do well to take heed of the norms surrounding circumvention and the appropriate uses of copyrighted works. Policymakers should pay attention, too. Indeed, the Register of Copyrights has begun to take notice of such norms when evaluating proposed exemptions from liability for circumvention of access controls, in an apparent attempt to craft exemptions that better reflect public expectations. This is not to say, of course, that a widespread but clearly infringing activity—say, P2P file sharing of copyrighted works—would or should win an exemption merely because of its popularity. Nor is the Register simply giving certain norms direct legal recognition. But where a particular use is clearly, or at least colorably, noninfringing, an exemption seems more likely if the use is a popular one.

The Register requires proponents of exemptions to demonstrate that the DMCA's prohibition on circumvention bears a "substantial adverse effect on noninfringing use" of the class of works at issue.¹¹⁷ Because the statute authorizes the Librarian to issue exemptions when "noninfringing uses . . . are, or are likely to be, adversely affected,"¹¹⁸ the Register's addition of the word "substantial" makes for a stricter standard.¹¹⁹ The practical effects of this requirement are twofold. First, proponents must demonstrate that DRM has occasioned a high degree of harm in order for the Register to recommend an exemption.¹²⁰ Second, this showing will be easier to make when the use in question is a widespread, commonly accepted activity—

117. *Section 1201 Rulemaking*, 64 Fed. Reg. 66,139, 66,141 (Nov. 24, 1999).

118. 17 U.S.C. § 1201(a)(1)(D) (2006).

119. The Register has faced criticism for this interpretation. In justifying her interpretation of the standard, she has pointed to parts of the DMCA's legislative history. *See Section 1201 Rulemaking*, 64 Fed. Reg. at 66,141–42. Others have contested this reading, including the Assistant Secretary of Commerce for Communications and Information. *See Section 1201 Rulemaking*, 65 Fed. Reg. 64,556, 64,562 (Oct. 27, 2000) (responding to "NTIA's observation that the word 'substantial' does not appear in section 1201(a)(1)(C)"). Some commentators attribute this addition to the Register's "eagerness to construct a relatively high burden of proof for proponents." Bill D. Herman & Oscar H. Gandy, *Catch 1201: A Legislative History and Content Analysis of the DMCA Exemption Proceedings*, 24 CARDOZO ARTS & ENT. L.J. 121, 169 (2006).

120. *See* Herman & Gandy, *supra* note 119, at 167–68 (discussing effect of the Register's adding "substantial" to the standard on the proponents' burden of proof).

when it reflects a widely held understanding of what one should be able to do with copyrighted works.

This framework still leaves the Register a good deal of discretion. Thus, in the first two rounds of rulemaking, the Register tended to recognize as legitimate only uses that we might describe as passive consumption: engagement with works such as video games¹²¹ or ebooks¹²² in precisely the way their creators envisioned, as a player or reader, and not the kind of transformative or productive engagement that doctrines like fair use might allow—engagement as a user, or an author in one’s own right. Since no one would contest that these very basic, consumptive uses are legitimate ways of engaging with copyrighted works, there was hardly any need to determine how widespread consumer expectations about being able to make such uses ran; presumably, they would be ubiquitous. Instead, it sufficed for the Register that proponents showed that the DRM technology at issue provided a complete impediment to access.¹²³

But the Register now seems to have recognized a broader universe of uses as legitimate, including ones that are more productive and transformative.¹²⁴ Accordingly, she seems to pay closer attention to how prevalent the use at issue in a given exemption appears to be. Thus, in extending the DVD circumvention exemption from media and film professors to creators of “noncommercial videos,” the Register took notice of proponents’ evidence about the popularity of such videos, citing various studies that put the number of noncommercial videos uploaded to YouTube each day at anywhere from 2,000 to 15,000.¹²⁵ Taking a more qualitative turn, the Register likewise recognized that “motion pictures are so central to modern American society and the lives of individual citizens that the need to

121. *See, e.g., Section 1201 Rulemaking*, 68 Fed. Reg. 62,011, 62,014 (Oct. 31, 2003) (creating exemption for “[c]omputer programs and video games distributed in formats that have become obsolete and which require the original media or hardware as a condition of access”).

122. *See id.* (creating exemption for “[l]iterary works distributed in ebook format when all existing ebook editions . . . contain access controls that prevent the enabling of the ebook’s read-aloud function and that prevent the enabling of screen readers”).

123. *See, e.g., Memorandum from Marybeth Peters, Register of Copyrights, to James H. Billington, Librarian of Cong.*, 80 (Oct. 27, 2003), *available at* <http://www.copyright.gov/1201/docs/register-recommendation.pdf> (basing the decision to approve the ebook exemption in part on a clear finding that “a significant number of ebook titles are distributed only in formats that are not perceptible to the blind and visually impaired”).

124. *See supra* Section II.A.

125. *Memorandum from Marybeth Peters, Register of Copyrights, to James H. Billington, Librarian of Cong.*, 39 (June 11, 2010), *available at* <http://www.copyright.gov/1201/2010/initialed-registers-recommendation-june-11-2010.pdf>.

comment upon and criticize these works has become an important form of social discourse.”¹²⁶ This observation echoed the view of the Assistant Secretary of Commerce for Communications and Information, who participates in the rulemaking¹²⁷ and who noted in his recommendation to the Register that “the world of online video has grown significantly, creating new norms and expectations that did not exist in 2006 and is becoming a new form of communication used worldwide.”¹²⁸ (Indeed, the Register took more explicit note of these comments elsewhere in her recommendation.)¹²⁹

Though her analysis was less extensive, the Register made similar observations in assessing the merits of the iPhone jailbreaking exemption. Her analysis noted proponents’ assertion that “a very large number of purchasers of iPhones have circumvented . . . restrictions”¹³⁰ on third-party applications—some 1.8 million, of whom “approximately 400,000 are located in the United States.”¹³¹ The lesson? For proponents of exemptions, there is strength in numbers, which is to say, there is strength in norms.

2. *From Norms to Law*

The Register has just begun to look to such norms, and they are of course one input among many others considered in the rulemaking proceedings. Nonetheless, this reliance prompts the question whether such norms *ought* to play any role in shaping copyright law. And while there may be many good reasons to proceed with caution, on the whole the use of norms as guidelines in changing the shape of the law is a net positive and ought to be encouraged.

Justice Brandeis famously denounced as anarchy a state where “every man . . . become[s] a law unto himself.”¹³² So, at first glance, the idea of giving norms legal status offends cherished notions about the rule of law and democratic procedure. Norms are not the product of democratic institutions—they have a far hazier provenance in the muddle of social relations. Moreover, norms tend to be sticky.¹³³ Cass Sunstein has suggested

126. *Id.* at 70–71.

127. *See* 17 U.S.C. § 1201(a)(1)(C) (2006).

128. Letter from Lawrence E. Strickling, Assistant Sec’y of Comm. for Comm’n and Info., to Marybeth Peters, Register of Copyrights, 6 (Nov. 4, 2009), *available at* <http://www.copyright.gov/1201/2010/NTIA.pdf>.

129. *See* Memorandum from Marybeth Peters, *supra* note 125, at 43 (repeating the Assistant Secretary’s observation nearly verbatim).

130. *Id.* at 79.

131. *Id.* at 79 n.268.

132. *Olmstead v. United States*, 277 U.S. 438, 485 (1928) (Brandeis, J., dissenting).

133. *See, e.g.*, Dan M. Kahan, *Gentle Nudges vs. Hard Shoves: Solving the Sticky Norms Problem*, 67 U. CHI. L. REV. 607 (2000).

that this stickiness can go so far as to pose a threat to individual freedom.¹³⁴ Because changing norms requires collective action on a potentially massive scale, he argues, people are relatively powerless to effect such change and may remain bound by norms that encourage inefficient or even harmful behavior.¹³⁵ Given these criticisms, it would seem foolhardy to build our laws on such shaky foundations.

Then again, if law and norms diverge too starkly, that result may also seem undemocratic.¹³⁶ It is thus no surprise that the law frequently does give effect to norms, generally by relying on norms of various kinds to give content to standards. For instance, tort law defines the standard of due care by reference to what a reasonable person would do in a given situation.¹³⁷ Likewise, in certain circumstances, contract law relies on the concept of trade usage to aid in the construction of contractual terms.¹³⁸ Such “delegation” to norms is not entirely foreign in the copyright context. Courts evaluating the first factor of the fair use inquiry—the “purpose and character of the [allegedly infringing] use”¹³⁹ of the copyrighted work—will sometimes consider the social role of that use. In the landmark case *Campbell v. Acuff-Rose Music, Inc.*, for example, the Supreme Court held that a parodic appropriation constitutes fair use.¹⁴⁰ In reaching this conclusion, it found significant the social meaning of parody.¹⁴¹ Indeed, a Copyright Office study leading up to the 1976 overhaul of the Copyright Act noted that fair use as a whole was, among other foundations, “said to be based on custom,” and that

134. See Sunstein, *supra* note 4, at 910 (“There can be a serious obstacle to freedom in the fact that individual choices are a function of social norms, social meanings, and social roles, which individual agents may deplore, and over which individual agents have little or no control.”).

135. *Id.*

136. See Gervais, *supra* note 40, at 50 n.49 (describing how a practice might pass from norm and custom into common and perhaps even constitutional law).

137. See, e.g., RESTATEMENT (SECOND) OF TORTS § 283 (1977) (describing the proper standard of conduct to avoid liability for negligence as “that of a reasonable man under like circumstances”).

138. See, e.g., U.C.C. § 1-205(5) cmt. 2 (2011) (“[T]he circumstances of the transaction, including . . . usages of trade . . . may be material.”).

139. 17 U.S.C. § 107 (2006).

140. 510 U.S. 569 (1994).

141. *Id.* at 580 (explaining that parody “can provide social benefit, by shedding light on an earlier work, and, in the process, creating a new one”).

“fair use is such use as is ‘reasonable and customary.’”¹⁴² The Supreme Court has cited this characterization of the doctrine with approval.¹⁴³

Eduardo Peñalver and Sonia Katyal suggest that norms might be particularly worth noting and incorporating into the law when they appear to be out of step with other regulatory tools and thus foment disobedience.¹⁴⁴ The authors argue that such transgression, whether by trespass or circumvention, occupation, or duplication, plays an important informational role in the law of ownership: it serves as a kind of informal channel of communication from the governed to the government—a channel capable of signaling moments and places where the law is at loggerheads with public desires and expectations.¹⁴⁵ Property disobedience, Peñalver and Katyal argue, “is instrumental in provoking productive legal transitions that . . . foster innovation or equity,”¹⁴⁶ and “can play a powerful role in correcting for democratic and imaginative deficits in law and policy.”¹⁴⁷ Their model carves out a special spot for disobedience in the intellectual property context—here, the messengers are not outlaws but “altlaws,” because the tendency of IP entitlements to be defined by notoriously fuzzy boundaries means many such “transgressors” will in fact claim that their conduct ought to be recognized as falling within the contours of existing law.¹⁴⁸ As does the outlaw in tangible property, these altlaws play an indispensable informational function, pointing out trouble spots for the reform agenda.

The more the DMCA rulemaking process takes heed of consumer expectations, the more it institutionalizes Peñalver and Katyal’s insights. This is a badly needed development, as the kind of information that such focus on norms might generate has always been in short supply in the framing of copyright law. Major copyright legislation has typically seen Congress brokering grand compromises between the competing interests of various copyright-related sectors, including the motion picture, music, and publishing industries—and, increasingly, software and telecommunications.¹⁴⁹ The voice

142. Alan Latman, *Fair Use of Copyrighted Works*, in STUDIES PREPARED FOR THE SUBCOMM. ON PATENTS, TRADEMARKS AND COPYRIGHTS, Study No. 14, at 7 (1960).

143. *See* Harper & Row, Publishers, Inc. v. Nation Enters., 471 U.S. 539, 548 (1985) (citing Latman study).

144. For a summary of their argument, see PEÑALVER & KATYAL, *supra* note 56, at 11–16.

145. *See id.* at 15–16.

146. *Id.* at 171.

147. *Id.* at 172.

148. *Id.* at 76–82.

149. *See generally* Jessica D. Litman, *Copyright, Compromise, and Legislative History*, 72 CORNELL L. REV. 857 (1987) (explaining framing of 1976 Copyright Act as a process of compromise among major industrial stakeholders). On the growing role of the software and

of the public has always been absent from this process.¹⁵⁰ This notwithstanding the fact that the Constitution, with its vision of patents and copyrights promoting the “Progress of Science and useful Arts,”¹⁵¹ designates the public as the ultimate beneficiary of intellectual property law.

How much of the Register’s limited observations about copyright norms will influence legislators the next time Congress takes up significant copyright reforms remains an open question. However, the growing breadth of the DMCA exemptions and the appearance of norms among the justifications for these carve-outs both indicate that the copyright practices and visions of ordinary consumers would for the first time have the chance to offer an alternative to the well-financed and well-represented views of the various copyright industries, backed by the imprimatur of the Copyright Office and the Librarian of Congress. The Register’s increased focus on norms could therefore be nothing but welcome. Of course, consumer norms cannot displace the legitimate interests of other copyright stakeholders outright. There are also potentially harmful norms, such as those that have helped infringement on file-sharing networks to proliferate. Some sort of limiting principle would thus be desirable. But perhaps it is too early to think about limiting a voice that has only recently begun to emerge.

V. CONCLUSION

A host of implications flows from the view of norms that this Note has advanced. Some come at a very granular level. If the DMCA rulemaking is to continue its recent turn toward assessing user expectations, the Copyright Office would do well to heed the suggestions of the Copyright Principles Project to hire economists and technologists to work alongside its lawyers.¹⁵² The Copyright Office might also take up the suggestion of the Electronic Frontier Foundation and conduct independent fact-finding.¹⁵³ More broadly,

telecommunications industries, see Pamela Samuelson, *Intellectual Property and the Digital Economy: Why the Anti-circumvention Regulations Need To Be Revised*, 14 BERKELEY TECH. L.J. 519 (1999) (describing the competing interests of Hollywood and Silicon Valley in the framing of the DMCA); see also Peter S. Menell, *Envisioning Copyright Law’s Digital Future*, 46 N.Y.L. SCH. L. REV. 63, 129–39 (2002) (describing the role of the content industries, as well as other countervailing interests, in the crafting of copyright legislation during the 1990s).

150. Litman, *supra* note 64, at 53 (“Right now the copyright-legislation playing field is completely controlled by its beneficiaries. . . . They are unlikely to countenance a statute that disempowers them in meaningful ways.”).

151. U.S. CONST. art. I, § 8, cl. 8.

152. Pamela Samuelson et al., *The Copyright Principles Project: Directions for Reform*, 25 BERKELEY TECH. L.J. 1175, 1205–06 (2010).

153. See ELEC. FRONTIER FOUND., DMCA TRIENNIAL RULEMAKING: FAILING THE DIGITAL CONSUMER 8 (2005), available at <http://w2.eff.org/IP/DMCA/copyrightoffice/>

if notice and comment rulemaking has allowed policymakers to take heed of such customer expectations in a way unprecedented in the copyright sphere, then it is worth considering whether to expand this model beyond the narrow confines of the Librarian's current authority under § 1201.

At a higher level, however, this is a story of missed signals. Market participants have too frequently ignored the preferences of users, seemingly acting on the belief that instead of catering to their consumers' tastes, they must protect themselves against them. Policymakers have only just begun to pay attention, but this focus would be worthwhile in both spheres. It would also be worthwhile among commentators and scholars. Perhaps copyright scholarship is due for an ethnographic turn—a synthesis of empirical accounts of user behavior with searching reflection on what weight the law ought to give such facts on the ground.

